

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**Investigation by the Department on its own §
Motion into the Appropriate Pricing, based §
upon Total Element Long-Run Incremental §
Costs, for Unbundled Network Elements and § D. T. E. 01-20
Combinations of Unbundled Network Elements, §
and the Appropriate Avoided Cost Discount §
for Verizon New England Inc. d/b/a Verizon §
Massachusetts' Resale Services §**

**DIRECT TESTIMONY OF ALLEN E. SOVEREIGN
ON BEHALF OF VERIZON NEW ENGLAND INC.
D/B/A VERIZON MASSACHUSETTS**

May 4, 2001

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EXHIBITAES-1

I. INTRODUCTION

Q. Please state your name, address and present background.

A. My name is Allen E. Sovereign. My business address is 1420 East Rochelle Blvd., Irving, Texas 75039. I am employed by Verizon as Group Manager-Capital Recovery.

Q. Please describe your education and work experience.

A. I received a Bachelor of Science Degree in Electrical Engineering from Michigan Technological University, Houghton, Michigan, in 1971. I received a Master of Science Degree in Business Administration from Indiana University, Bloomington, Indiana, in 1980. I have attended courses in depreciation and life analysis provided by Depreciation Programs, Inc., of Kalamazoo, Michigan. I have also attended and instructed basic and advanced GTE courses in depreciation life analysis. I am a Senior Member of the Society of Depreciation Professionals.

I have worked for Verizon for over 25 years, with 18 of those years in the depreciation study area. I have held various positions in Engineering and Construction, Capital Budgeting, Marketing, and Product Development. I was named to my current position in February 1994.

Q. What are the responsibilities of your current position?

A. I am responsible for the preparation, filing and resolution of capital recovery studies and the determination of economic lives for Verizon.

Q. Have you previously testified before any other regulatory agencies?

A. Yes, I have testified on capital recovery issues before state utility commissions in South Carolina, Texas, New Mexico, Arkansas, California, Washington, Idaho, Illinois, Indiana, Nebraska, Pennsylvania, Michigan, Virginia, Kentucky, Nevada, Iowa, and Hawaii.

Q. What is the purpose of your Direct Testimony?

A. The purpose of my testimony is to recommend and support depreciation lives and future net salvages used in the cost studies to calculate Unbundled Service Network Element ("UNE") rates for Verizon Massachusetts ("Verizon MA").

Q.What depreciation inputs did Verizon use in the cost studies it submitted in this proceeding?

A.Verizon used the forward-looking economic lives and future net salvage values that it used in its financial reporting for 1999, and which I recommend in this testimony. These are the same depreciation parameters that Verizon used for its 1999 financial reporting to its shareholders. A complete list of Verizon's proposed depreciation lives and future net salvage percentages is attached to my testimony as Exhibit AES-1.

Q. Please summarize your direct testimony.

A.The Massachusetts Department of Telecommunications and Energy ("Department") should approve the economic depreciation inputs Verizon used in its cost studies. Like the cost study methodology prescribed for use in this proceeding, Verizon's depreciation inputs are forward-looking. This forward-looking approach produces a more accurate estimate of assets' economic lives than an outdated, historical approach.

When all local exchange companies were monopoly providers, regulators could defer capital recovery without affecting the ability of the regulated company to recover its investments. With the advent of local competition, regulators no longer have the luxury of postponing capital recovery in the rate-setting process. The changing telecommunications environment must be taken into consideration when determining the proper recovery period of an asset. The methodology described in my testimony considers these developments.

II. ECONOMIC LIVES MUST BE USED IN FORWARD-LOOKING COST STUDIES

Q.Are the depreciation rates established by the Federal Communications Commission ("FCC") appropriate for determining the costs of UNEs?

A. No. The FCC's prescribed depreciation parameters are appropriate only for regulatory reporting purposes. This UNE docket requires forward-looking economic depreciation inputs. The FCC-prescribed depreciation inputs were developed for regulatory reporting purposes to recover both past embedded plant investment and newly placed plant investment. Verizon uses economic parameters for its reports to stockholders.

Q. Are you familiar with the Department's Phase 4 decision in the Consolidated Arbitrations, where based on the record, the Department adopted the FCC lives in the most recent FCC prescription for use in the TELRIC studies?

A. Yes.

Q. Do you agree with the conclusion that these lives are forward looking and appropriate for inputs in determining the costs of UNEs?

A. No. These lives are not appropriate for use as inputs in determining the costs of UNEs. Depreciation practitioners have not used traditional historical depreciation analysis to determine the depreciation life parameter for several years. The FCC claims that its lives consider technological change and competition, however, its analysis underestimates the impact of these factors. The lives used by Verizon for financial reporting more accurately reflect that these relevant factors. The table below compares the lives from the Department's Phase 4 Order with the lives Verizon used in the cost model and the lives Verizon is using for financial reporting. The lives used in the cost model were in effect

for financial reporting in 1999, whereas the lives used for financial reporting were revised in 2001 to more accurately reflect the competitive environment.

Projection Lives (Years)

Verizon

Financial Verizon DTE

Account Reporting Proposed Ordered

ESS Digital 10 10 15

Circuit Equipment 9 9 11

Aerial Cable Metallic 16 18 22

Underground Ca Metal 16 18 25

Buried Cable Metallic 16 18 23

Fiber Cable 20 20 25

Q. Please define the term "economic life" and how it relates to the cost studies.

A. "Economic life" is defined as the period of time over which an asset is used to provide economic value. Verizon's proposed depreciation parameters consider the decline in an asset's value from all causes, including competition and technological change. The parameters reflect the principle that depreciation should be consistent with forward-looking economic assumptions and based on competitive market asset lives.

Q. What are "FCC-prescribed depreciation lives"?

A. These are the lives set for regulatory accounting purposes.

Q. Does the Department prescribe depreciation parameters for Verizon?

A. No. In the Price Cap Plan adopted by the Department in May 1995, in D.T.E. 94-50, the Department ruled that Verizon MA should have the flexibility to adjust its own depreciation parameters provided that the Company used depreciation lives that did not exceed those prescribed by the FCC in its most recent triennial represcription. Since that decision, the Company has used depreciation parameters that are consistent with, or shorter than the lives approved for Verizon in the FCC's 1996 represcription for both intrastate regulatory reporting, and financial reporting purposes.

Q. Is an asset's economic life equal to the depreciation life of that asset as prescribed by state commissions or the FCC?

A. No. Economic lives are generally shorter than prescribed asset lives.

Q. Why are economic lives shorter than prescribed lives?

A. Historically, regulatory commissions prescribed asset lives under the assumption that there would be little or no competition and that technological innovation would continue at its traditional pace. The Telecommunications Act of 1996 ("Act") is intended to spur a new competitive environment that invalidates that basic assumption.

As previously discussed, the economic life of an asset is the period of time over which that asset is used to provide economic value. Both increased competition and technological change shorten the period over which an asset will provide economic value. In a world where Verizon was the sole provider, depreciation rates were based upon artificially long asset lives. By basing depreciation rates on long asset lives, the depreciation rates were lower, and the period over which the asset was depreciated was longer. These longer depreciation lives helped regulatory agencies keep consumer prices artificially low. Today's current market environment reduces the length of time over which Verizon can recover its investment in an asset and renders unsustainable the use of artificially long asset lives in calculating depreciation rates.

Q. When estimating economic lives, is it possible to use traditional life estimation techniques?

A. No. Traditional life estimation techniques are used to predict an asset's physical life, but not its economic life. The physical life of an asset ends upon that asset's retirement. Economic lives, however, can be affected when no retirements are evident. For example, assume Verizon has a 1,200 pair cable that has been used to provide service to 1,000 customers in the pre-Act single-provider environment. Next, assume that in the post-Act industry, only 500 pairs of the 1,200 pair cable are being used (i.e., providing service to customers and economic value to Verizon) as a result of 500 customers leaving for competitors' networks. Retirement-based analysis (i.e., the traditional physical life estimation technique) assumes that all plant in service has economic life. However, under this scenario, only 50 percent of the originally utilized investment actually have economic life. The economic life of the asset is severely affected by competition, but there are no associated retirements of the asset.

III. COMPETITION AND TECHNOLOGICAL INNOVATION REQUIRE THE USE OF ECONOMIC LIVES

Q. What factors should the Department consider in approving depreciation inputs for determining UNE costs?

A. The two most important factors that must be considered in establishing the economic value of Verizon's assets are: (1) technological innovation and (2) the impact of competition.

Q. What technological innovations did you consider in establishing Verizon's economic lives?

A. Competitive carriers are utilizing a number of alternative technologies to provide telecommunications service that completely bypass the Incumbent Local Exchange Carrier's (ILEC) existing wireline network. These technologies include wireless local loops, cable television lines, and electric lines. Prior to the passage of the Act, depreciation analysis consisted primarily of mortality analysis with only slight adjustments for technological change. Now, the rapid pace of advancement in technological innovations must be recognized in establishing the economic value of Verizon's assets.

Q. What competitive developments did you consider in establishing Verizon's economic lives?

A. Competitor's in Massachusetts are providing service to both residential and business customers across the state using each of the three modes of competitive entry provided for in the 1996 Act - interconnection, access to UNEs, and resale. The extent of competition in the Massachusetts telecommunications marketplace is widespread, and carriers are active throughout the state. There are hundreds of carriers offering telecommunications services across Massachusetts. These include interexchange and other "toll" carriers, pay phone providers, competitive access providers, cable companies, Resellers, competitive local exchange companies ("CLECs"), data CLECs, and microwave providers. Some offer complete packages of voice, data and Internet services, while others provide service in particular segments such as data, and are principally focusing at this time on providing DSL, Frame Relay and point-to-point services. Using all three entry modes envisioned by the Act, carriers are offering a range of services, and the evidence of competition in Massachusetts is compelling. I am informed that in *every* Verizon MA central office in the state at least two of the three modes of entry are employed by carriers to serve customers, and in 88 percent of the central offices, all three modes of entry are currently employed.

Companies, such as AT&T and WorldCom are spending billions of dollars to bypass the ILECs' networks nationwide. In this regard, AT&T has undertaken an approach of buying cable television companies. It has publicly declared that it will offer local phone service via cable TV wires, either on its own or in partnership with others, and via fixed wireless technology. For example, in Massachusetts, AT&T Broadband currently provides cable television service in municipalities whose principal serving central office contains over 86 percent of Verizon MA's business lines and 80 percent of its residence lines. AT&T Broadband is now providing its Digital Telephone Service in municipalities that contain approximately 40 percent of Verizon MA's business lines and over 37 percent of Verizon MA's total lines.

Even where AT&T does not have wireline facilities, it is pursuing a bypass strategy. This is highlighted in the following quote from a recent AT&T Internet website article, dated May 18th, 2000, entitled "Angel Takes Flight."⁽¹⁾ "By eliminating the copper-wire connection necessary for land-line communications, fixed wireless literally cuts the cord between the traditional central office or switching center and a consumer's home." This same article illustrates the linkage of the extensive cable network purchased over the last months with the fixed wireless technology: "The goal is to bring fixed wireless service everywhere AT&T Cable Services is not." WorldCom is also investing in its own fixed wireless technology to bypass the LEC network. Other fixed wireless companies, such as Winstar and Teligent, are currently offering a fixed wireless alternative to local landline service in Massachusetts.

Since these companies are obviously pursuing a bypass strategy, and since they cannot build facilities to supply the entire market immediately, it is logical that they would only want to purchase UNEs from the ILECs on an interim basis. It follows, then, that the economic life of the ILEC's facilities will be seriously diminished. If the Department orders unduly long lives for cost model inputs, the CLECs' cost of providing service through the purchase of UNEs will be considerably less. Companies such as AT&T and WorldCom will thus have the best of both worlds, able to obtain UNEs at prices substantially below their economic value, while completing their own networks to bypass the ILECs.

IV. VERIZON PROPERLY WEIGHS ALL RELEVANT FACTORS IN DETERMINING ECONOMIC LIVES.

Q. What method does Verizon use to determine the economic life of an asset?

A. When estimating economic lives, Verizon (a) evaluates the criteria that are used to establish the retirement lives of assets as a guideline for estimating economic lives, (b) considers industry benchmark comparisons, and (c) considers the effect the evolving competitive market will have on the economic lives of many of Verizon's assets.

Q. Please explain the use of these factors in more detail?

A. Verizon first considers the National Association of Regulatory Utility Commissioners' description of factors that cause property to be retired.⁽²⁾ These include:

1. Physical Factors

- a. Wear and tear
- b. Decay or deterioration
- c. Action of the elements and accidents

2. Functional Factors

- a. Inadequacy
- b. Obsolescence
- c. Changes in art and technology
- d. Changes in demand
- e. Requirements of Public Authorities
- f. Management discretion

3. Contingent Factors

- a. Casualties or disasters
- c. Extraordinary obsolescence

These same factors can be used to help estimate an asset's economic life expectancy by allocating the appropriate weighting to each factor. That is, Verizon uses the NARUC factors as a guideline for choosing economic lives of certain assets, but only after allocating proper weighting to those factors that reflect the significant roles competition and technological change play in determining an asset's economic life. Specifically, the "Functional Factors" (Part 2 of the NARUC factors) are sensitive to competition and technological change and are given substantially greater weight when Verizon considers the NARUC criteria in establishing the economic lives of Verizon's assets. As I explained above, the effects of competition and technological change on an asset's economic life must be properly considered when determining competitive market asset lives. It has long been recognized in the industry that traditional methods for determining lives for accounts most affected by technology and competition are inadequate. Most commissions, including this one, have thus seen fit to make adjustments to the physical life indications produced by historical mortality analysis.

Q. What other guides do you use in establishing asset lives?

A. To help quantify our professional judgment as to the appropriate lives for telephone plant, Verizon also benchmarks against competitors, such as AT&T, WorldCom, and cable television providers, and considers industry studies performed by Technology Futures Inc. ("TFI").

Q. Please explain why benchmarking is useful and appropriate.

A. Benchmarking affords an excellent example of the reasonableness of Verizon's recommended depreciation lives. In a competitive environment, we should be treated the same as our competitors with respect to setting depreciation rates. Competitors' depreciation rates are not reviewed or approved by any regulatory body, and are a good guide to reasonable practices in a competitive market. Indeed, since the FCC's TELRIC cost methodology is intended to approximate what the incumbent LEC would be able to charge if there were a competitive market for such offerings, the benchmark approach is particularly appropriate.

Q. What did you determine using benchmark comparisons with AT&T?

A. Comparing the economic lives proposed by Verizon to the lives AT&T uses affords an excellent example of how reasonable Verizon's recommendations are. AT&T's 1999 annual report states that the useful life of communications and network equipment ranges from 3 to 15 years. The useful life of other equipment ranges from 3 to 7 years. The useful life of buildings and improvements ranges from 10 to 40 years. Verizon's recommended lives are not as short as AT&T's. In comparison, Verizon's recommendation for network equipment ranges from 8 to 40 years. My testimony also recommends 5 to 10 years for Other Equipment and 35 years for buildings.

Q. What was determined by the comparison with WorldCom?

A. WorldCom's 1996 annual report stated that the weighted average depreciable life of the assets comprising the communications system in service approximates 10 years. Furniture, fixtures and equipment are depreciated over a weighted average life of 6 years. Buildings are depreciated using lives of up to 35 years. In comparison, Verizon's recommendation for equipment that comprises the communication system

ranges from 8 to 40 years. My testimony recommends 5 to 10 years for furniture, fixtures and equipment, and 35 years for buildings.

In 1997, WorldCom again shortened the weighted average depreciable life of the assets comprising the communications system in service from approximately ten years to nine years, stating that the company periodically reviews and adjusts the useful lives assigned to fixed assets to ensure that depreciation charges provide appropriate recovery of capital costs over the estimated physical and technological lives of the assets.

Q. What was determined by the comparisons to lives used by the cable television ("CATV") operators?

A. Verizon's lives are not as short as the lives used by CATV operators. The FCC adopted a flexible range of lives to be used by CATV operators seeking to justify depreciation rates in cost of service filings. The useful lives adopted by the FCC for distribution facilities were from 10 to 15 years. This range was developed from a statistical analysis of lives used by CATV operators for their own facilities. The 16-year economic life for copper cable and the 20-year life for fiber cable calculated selected by Verizon are not as short as the lives within the FCC-allowed range for CATV distribution facilities. Additionally, the lives proposed by Verizon for support assets such as office furniture and equipment, vehicles, and buildings are reasonable when compared to the FCC-allowed ranges for CATV operators. The FCC range for office furniture and equipment is 9-11 years, which compares favorably to Verizon's proposal of 10 years for these accounts. The FCC range for vehicles and equipment is 3-7 years, which is shorter than Verizon's proposal of 8-10 years. The FCC range for buildings is 18-33 years, which compares favorably with Verizon's proposal of 35 years.⁽³⁾

Q. Have any other commissions determined that benchmarking is a viable method to assess the reasonableness of Verizon's proposed lives?

A. Yes. The Missouri Public Service Commission commented on benchmarking for purposes of establishing depreciation rates to be utilized in Verizon's TELRIC cost studies as follows:

Staff believes that benchmarking GTE TELRIC rates against those booked for financial purposes of likely competitors and other companies using similar technologies is appropriate and is the best method to determine if GTE's TELRIC rates pass the muster of reasonableness.⁽⁴⁾

The Missouri Staff chose 19 of the largest IXC, CATV, cellular, CAP, and PCS companies to benchmark against and found that the depreciation rates used to calculate Verizon TELRIC costs were at the bottom or second from the bottom of the list and were significantly lower than several companies in similar industries, concluding:

This is the most significant factor to Staff's belief that GTE's proposed depreciation rates are reasonable.⁽⁵⁾

Q. Please explain your use of the TFI studies.

A. TFI forecasts the remaining lives for certain assets when technological change is driving the shortening of asset lives. To quantify this technological change, TFI uses a model to analyze remaining economic lives using patterns of technological substitution observed in the communications industry, as well as other industries. The industry studies

conducted by TFI forecast the combined effects that competition and technological change will have on an asset's remaining useful life. The studies generally project shorter lives than traditionally prescribed by most Commissions. Verizon uses the TFI lives as a reasonableness benchmark comparison with the lives used by other companies, both regulated and non-regulated, with similar types of telecommunications assets.

Q. What do the TFI studies recommend Verizon use as economic lives for its assets?

A. Verizon's recommendations here are in line with TFI's recommended economic life ranges, as shown by the following chart.⁽⁶⁾

A Comparison of the TFI Ranges with Verizon's Proposed Economic Lives

TFI Verizon

Ranges Economic

Digital Switching Equipment 9-12 10

Circuit Equipment 6-9 9

Copper Cable 14-20 18

Fiber Cable 20 20

TFI specifically addresses the appropriate lives to be used for outside plant cable, central office switching, and circuit equipment accounts, as these accounts report equipment that are most affected by changes in competition and technology.

V. VERIZON'S ECONOMIC LIVES HAVE BEEN ENDORSED BY OTHER STATE REGULATORY COMMISSIONS

Q. Has any other regulatory body approved the economic lives presented here?

A. Yes. In 1996, the California Public Utilities Commission ("CPUC") endorsed the use of the same economic lives presented here except that they approved a 14 year life for copper cable, one year less than I am recommending here. The CPUC concluded that the economic lives used by Verizon and Pacific Bell for external financial reporting were the appropriate forward-looking lives for cost studies. The CPUC rejected the suggestion by AT&T and others that FCC-prescribed lives are forward-looking, stating:

We agree with Pacific that the schedules formally adopted in the represcription proceeding reflect the previous paradigm of the regulated monopoly environment, and so are difficult to justify in a cost study that looks forward to an environment in which there is local exchange competition. We also see little merit in the Coalition's original suggestion that we use FCC schedules. These schedules also reflect the previous paradigm; moreover, they are based on different assumptions and applied in different ways than our own. It also seems to be the case, however, that Pacific is now using these schedules in financial reports it is required to file, and thus for purposes of these cost studies, the schedules also appear consistent with generally accepted accounting principles. The schedules also appear realistic for a firm having to operate in a competitive environment, as Pacific will soon have to do. Accordingly, we will approve their use in this proceeding.

Q. Has the use of economic lives been endorsed in other state proceedings?

A. Yes. In 1997, the Missouri Public Service Commission adopted the same economic lives proposed in this case, stating:

Staff's goal has been to recommend depreciation rates based on parameters that GTE is likely to experience for financial purposes so as to fully recover its long run capital costs in a timely fashion.⁽⁷⁾

The Michigan Public Service Commission also adopted its Staff's recommendation to approve the use of Verizon's economic lives on February 25, 1998, stating:

GTE proposes to reduce its asset lives in accordance with their economic lives ... The Staff's view is that GTE's proposed asset lives are largely consistent with a forward-looking approach and are reasonable The Commission finds that GTE's proposal related to depreciation is appropriate for TSLRIC purposes The Commission further finds AT&T/MCI's proposal to be insufficiently forward looking for purposes of a TSLRIC study.⁽⁸⁾

VI. CONCLUSION

Q. Please summarize your direct testimony.

A. Traditional historical methods of establishing depreciation lives are not forward-

looking. The economic lives used in Verizon's cost studies are properly based on a forward-looking approach. Verizon uses the same depreciation inputs as recommended in this docket for financial reporting to its shareholders. Verizon's proposed lives are reasonable in comparison to the financial reporting lives of competitive telecommunications providers such as AT&T and cable television companies, and should be adopted by the Department for use in establishing permanent UNE rates.

Q. Does this conclude your direct testimony?

A. Yes.

1.

¹ *Angel takes flight* (May 18, 2000) <
<http://www.att.com/technology/features/0005fixedwireless.html>>

2.

² Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners (NARUC), 1996, at 15.

3.

³ In the Matter of Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation and Adoption of a Uniform Accounting System for Provision of Regulated Cable Service, M.M. Docket No. 93-215 and C.S. Docket No. 94-28, Second Report and Order, First Order on Reconsideration, and Further Notice of Proposed Rulemaking, FCC No. 95-502, 11 FCC Rcd. 2220, at 2258, 2314 (January 26, 1996)

4.

⁴ In the Matter Of AT&T Communications of the Southwest Inc.'s Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement between AT&T Communications of the Southwest, Inc. and GTE Midwest Incorporated, Case No. TO-97-63, Final Arbitration Order, Attachment C at 77 (Mo. P.S.C. July 31, 1997) ("Missouri Order").

5.

⁵ Missouri Order, Attachment C at 79

6.

⁶ Larry K. Vanston, Ray L. Hodges, and Adrian J. Poitras, *Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change* 33, (Technology Futures, Inc., 2d Ed. 1997)

7.

⁷ Missouri Order, Attachment C at 76.

8.

⁸ In the Matter, on the Commission's own Motion to consider the total service long run incremental costs and to determine the prices of unbundled network elements, interconnection services, resold services and basic local exchange services for GTE North, Docket No. U-11281, Opinion and Order at 28 (Mich. P.S.C. Feb. 25, 1998)